"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001240

BILAY, V.I.; PIDOPLICHKO, N.N. [Pidoplichko, M.M.]; GUTYRYA, V.S. [Hutyria, V.S.]; BUKHALO, A.S.; V'YUN, A.A. [V'iun, H.A.]; GALICH, P.N. [Halych, P.M.]; KOVAL', E.Z.; MASUMYAN, V.Ya.; MIL'KO, A.A. [Mil'ko, O.A.]

Petroleum hydrocarbons as a source of carbon for microscopic mycelial soil fungi. Mikrobiol. zhur. 27 no.2:3-10 '65. (MIRA 18:5)

1. Institut mikrobiologii i virusologii AN UkrSSR i Institut khimii vysokomolekulyarnykh soyedineniy AN UkrSSR.

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0012408

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001240

PIDOPRIGORA, V.S. [Pidopryhora, V.S.]

Behavior of seeds of late spring weeds in water. Ukr bot.zhur. 16 no.6:23-29 '59. (MIRA 13:5)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut kukuruzy Vsesoyuznoy akademii sel'skokhozyaystvennykh nauk im. Lenina, Dnepropetrovsk.
(Weeds)

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0012408

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001240

ROZENTAL', F.A.; VINOGRADOVA, N.A.; BONDARCHUK, V.M.; PIDORCHENKO, V.F.

System for rapid drying of processed motion-picture films.
Trudy NIKFI no.45:33-49 '62. (MIRA 15:9)
(Motion-picture photography--Films) (Drying)

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0012408

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001240

RAL'NIKOV, I. V. [illegible]OPICH, V.V.

"[illegible]" unit for automating single-stage milling cycles at ore dressing plants. TSvet. met. 38 no.6:14-18 Je '65.
(MIRA 18:10)

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0012408

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001240

MEMORANDUM FOR: [illegible]

FROM : [illegible]

SUBJECT : [illegible]

DATE : [illegible]

1. [illegible]

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0012408

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Abs Jour : Ref Zhur - Biol., No 9, 1958, No 39617

toxic properties in the soil for about 2 months. The herbicide is harmless to soybean plants when the recommended dose is used. -- T.L. Rivkind.

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0012408

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001240

PIDOPRIGORA, V.S.

Chemical methods of weed control in soybean crops. [with summary in English] Dop. AN URSR no.1:75-77 '57. (MLRA 10:4)

1. Vsesoyuznyy naukovo-doslidniy institut kukurudzi, Dnipropetrovs'k. Predstaviv akademik AN URSR P. A. Vlasyuk.
(Soybean) (Weed control)

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0012408

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001240

PIDORICH, V.V., inzh.; RAL'NIKOV, L.N., inzh.

Device for the automatic measurement and recording of the granulometric composition of pulp. Gor. zhur. no.6:50-52 Je '65. (MIRA 18:7)

1. Severo-Kavkazskiy filial konstruktorskogo byuro TSvetmetavtomatika, Ordzhonikidze.

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0012408

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001240

L 42962-66 EWP(e)/EWT(m)/T/EWP(t)/ETI IJP(c) JD/JG/AT/WH
ACC NR: AR6024985 SOURCE CODE: UR/0081/66/000/007/B066/B065

AUTHOR: Pidorya, M. M.; Mocharnyuk, G. F.

TITLE: Some aspects of the growing of cuprous oxide single crystals

SOURCE: Ref. zh. Khimiya, Part I, Abs. 7B449

REF SOURCE: Sb. Materialy radioelektron. i elektr. mashiny. L'vov, L'vovsk. un-t, 1964, 19-21

TOPIC TAGS: cuprous oxide, single crystal growing

ABSTRACT: Cu_2O single crystals were grown by oxidizing Cu at 1060° for 10-40 hr. Cooling was accomplished in superheated steam at 150-200°. Etching on the (111) plane and x-ray diffraction (Laue method) showed that coarse Cu_2O crystals grown in an oxidized plate have several preferred directions of growth, (112), (119), (110). The (111) direction is generally parallel to the outer surface of the plates, or makes a 20° angle with it. L. Dem'yanets. [Translation of abstract]

SUB CODE: 20

Card 1/1

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0012408

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001240

PIDPALYY, G.P.; SHPINEV, V.F. (Krivoy Rog)

Role of the provincial specialized clinical hospital in the decrease of silicosis incidence. Gig. truda i prof. zab. 7 no.3:47-48 Mr'63 (MIRA 17:1)

1. Oblastnaya spetsializirovannaya klinicheskaya bol'nitsa, Krivoy Rog.

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0012408

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001240

KOSHARNYY, I.Ya. [Kosharnyi, I.IA.]; PIDPRIGORSHCHUK, N.V.; GAPSHENKO, I.I.; SKRIPNIK, K.I.; KASHCHENKO, I.A., red.; KUTSENKO, V.P., red.; NIKOLAYENKO, V.S., red.; POTAYCHUK, I.M. [Potaichuk, I.M.], vidp. red.; SENDZYUK, F.L., red.; FOGT, V.Ya., tekhn. red.

[Soviet Drogobych Province] Radians'ka Drohobychchyna. Drohobych, Drohobyts'ke obl. vyd-vo, 1957. 199 p. (MIRA 11:8)
(Drogobych Province)

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0012408

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001240

PIDORICH, I.

Moving Picture Projection

Travelling motion picture operator. Kinomekhanik No. 1, 1952.

9. Monthly List of Russian Accessions, Library of Congress, June 1952. Uncl.

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0012408

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001240

ANDRIYEVSKIY, A.I.; DIMAROVA, Ye.N.; PIDORYA, M.M.

Heat conductivity of copper oxide monocrystals and polycrystals. Fiz. tver. tela 4 no.1:163-167 Ja '62. (MIRA 15:2)

1. L'vovskiy politekhnicheskiy institut.
(Copper oxide crystals--Thermal properties)

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0012408

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001240

L 18117-63 EWP(q)/EWT(m)/BDS AFFTC/ASD JD

ACCESSION NR: AP3003902 S/0181/63/005/007/2007/2009

AUTHORS: Andriyevskiy, A. I.; Mocharnyuk, G. F.; Pidorya, N. M. 59

TITLE: Thermal vacuum etching of single cuprous oxide crystals 18 58

SOURCE: Fizika tverdogo tela, v. 5, no. 7, 1963, 2007-2009

TOPIC TAGS: etching, thermal etching, vacuum etching, crystal, Cu, O, dislocation structure, edge dislocation, etch pit

ABSTRACT: The authors have studied dislocations on the (100) and (111) faces of cuprous oxide crystals after heating them in a vacuum. The initial samples were obtained from cupric oxide at high temperatures. Plates of mineral specimens were placed in a quartz tube in which the temperature and pressure were chosen to allow heat treatment in the enivronments in which copper and cuprous oxide exist. The experiments were thus carried out under two different sets of conditions: 1) a temperature of 1000C and an oxygen pressure of 10^{-4} mm Hg (the environment of Cu), and 2) a temperature of 800C and an oxygen pressure of 1 mm Hg (the environment of Cu_2O). Heating of samples up to 8 hours under the first set of conditions produced only insignificant changes on the surfaces of the samples, but prolonged heating produced etch figures on both the (111) and (100) faces, reminiscent of chemical

Card 1/2

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0012408

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001240

L 18117-63
ACCESSION NR: AP3003902

etching. The figures on the (100) face were characteristic of edge dislocations. Etching under the second set of conditions produced three-sided pyramidal pits with well-defined peaks, corresponding to dislocations emerging on the (111) face. The thermal etching of cuprous-oxide crystals makes it possible to study dislocation structure of these crystals at high temperature. Together with this, vacuum etching may prove to be an aid in this process of studying the mechanism by which the concentration of oxygen changes during the heat treatment of cuprous oxide. Orig. art. has: 2 figures.

ASSOCIATION: L'vovskiy politekhnicheskiy institut (Lvov Polytechnical Institute)

SUBMITTED: 02Jan63 DATE ACQ: 15Aug63 ENCL: 00

SUB CODE: PH, ML NO REF SOV: 004 OTHER: 005

Card 2/2

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0012408

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001240

33354
S/181/62/004/001/026/052
B102/B104

24.7600 1043 1035

AUTHORS: Andriyevskiy, A. I., Dimarova, Ye. N., and Pidorya, M. M.

TITLE: Thermal conductivity of Cu_2O single and polycrystals

PERIODICAL: Fizika tverdogo tela, v. 4, no. 1, 1962, 163-167

TEXT: A comparison of published results shows that the heat conduction coefficient of Cu_2O differs by 100 % with the use of different measuring methods. Kh. I. Amirkhanov (Izv. AN Az.SSR, 1, No. 4, 1946) has shown that λT = const for Cu_2O between 93 and 763°K, which is indicative of pure phonon heat conduction. It was now studied inhowfar the crystal structure and the impurity concentration affect the thermal conductivity, since, e.g., phonon scattering from grain boundaries and impurity centers may play a role. The specimens investigated were prepared from M-O (M-O) copper and subjected to different kinds of heat treatment in air or vacuo. The experimental arrangement for heat-conduction measurement (Fig. 1) had a measuring accuracy of 0.02°. The maximum error in λ measurement was ≤ 3 %. Electrical conductivity σ and carrier concentra-

Card 1/3

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0012408

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001240

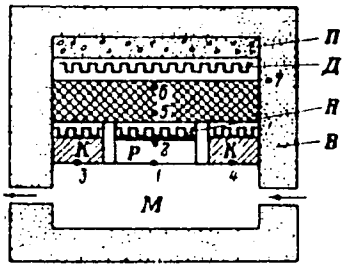
33354
S/181/62/004/001/026/052
B102/B104

Thermal conductivity of Cu_2O single...

ASSOCIATION: L'vovskiy politekhnicheskiy institut (L'vov Polytechnic Institute)

SUBMITTED: June 19, 1961 (initially)
July 17, 1961 (after revision)

Fig. 1. Experimental arrangement.



Legend: (1) - (7) copper-constantan thermocouples; (П) foam plastics; (Д) additional heater; (Н) main heater; (К) insulating ring; (Р) specimen; (В) cotton wool; (М) copper plate as coolant.

Card 3/3

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0012408

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001240

BOBROV, Ye.G.; BONDARTSEV, A.S.; BORISOVA, A.G.; VASIL'KOV, B.P.; VASIL'CHENKO, I.T.; GOLUBKOVA, V.F.; GRUDZINSKAYA, I.A.; YEGOROVA, T.V.; ZINOVA, A.D.; IVANINA, L.I.; LEONOVA, T.G.; MATSENKO, A.Ye.; PIDOTTI, O.I.; POBEDIMOVA, Ye.G.; POLYAKOV, P.P.; POYARKOVA, A.I.; SAVICH, V.P.; SIN'KOVA, G.M.; SMIRNOVA, Z.N.; SMOL'YANINOVA, L.A.; FEDOROV, Al.A.; KHARADZE, A.L.; TSVELEV, N.N.; SHISHKIN, B.K.[deceased]; PEN'KOVA, G.A., red.; BARANOVA, L.G., tekhn. red.; FRIDMAN, Z.L., tekhn. red.

[Botanical atlas] Botanicheskii atlas. Moskva, Sel'khozizdat, 1963. 501 p. (MIRA 16:12)

1. Chlen-korrespondent AN SSSR (for Shishkin).
(Botany--Atlases)

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0012408

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001240

ARTYUSHENKO, Z.T.; GUSEV, Yu.D., kand.biolog.nauk; ZAYTSEV, G.N.; ZAMYATNIN, B.N.; KNORRING-NEUSTRUYEVA, O.E.; PIDOTTI, O.A.; PILIPENKO, F.S.; POLYAKOV, P.P.; RODIONENKO, G.I.; SELIVANOVA-GORODKOVA, Ye.A.; SOKOLOV, S.Ya., prof., doktor biolog.nauk; SMIRNOVA, A.V., tekhn.red.

[Trees and shrubs of the U.S.S.R.; wild and cultivated, and the prospects for introduction] Derev'ia i kustarniki SSSR; dikorastushchie, kul'tiviruemye i perspektivnye dlia introduktsii. Moskva, Izd-vo Akad.nauk. Vol.6. [Angiosperms: Loganiceae-Compositae] Pokrytosemennye semeistva, Loganievye - Slozhnotsvetnye. 1962. 378 p. (MIRA 15:5)

1. Akademiya nauk SSSR. Botanicheskiy institut.

(Trees) (Shrubs)

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0012408

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001240

PLOTTI, O. A.

Atlas and index of seeds and fruits of ornamental annuals. Moskva, Izd-vo Akademii nauk SSSR, 1952. 119 p. (Akademiia nauk SSSR. Botanicheskaia [illegible] seriia, [illegible]

QK94.P5

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0012408

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001240

GOLOVACH, A.G.; GRUBOV, V.I.; ZANYATNIN, B.N.; LINCHEVSKIY, I.A.; PETYAYEV, S.I.; PIDOTTI, O.A.; PILIPENKO, F.S.; POLETIKO, O.M.; RODIONENKO, G.I.; SAAKOV, S.G.; SELIVANOVA-GORODKOVA, Ye.A.; SOKOLOV, S.Ya., prof., doktor biolog.nauk; SHIPCHINSKIY, N.V. [deceased]; BELKINA, M.A., red.izd-va; BLEYKH, E.Yu., tekhn.red.

[Trees and shrubs of the U.S.S.R.; wild and cultivated species and plants considered for prospective introduction] Derev'ia i kustarniki SSSR; dikorastushchie, kul'tiviruemye i perspektivnye dlia introduktsii. Moskva, Vol.5. [Angiosperms: myrtle and olive families] Pokrytosemennye: Semeistva mirtovye-maslinovye. 1960. 543 p. (MIRA 13:12)

1. Akademiya nauk SSSR. Botanicheskiy institut.
(Myrtle) (Olive) (Plant introduction)

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0012408

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001240

PIDOTTI, O.A.

"Manual of seeds for agriculture, horticulture, and forestry" [in German] by W.Brouwer and A.Stählin. Reviewed by O.A. Pidotti. Bot.zhur. 41 no.10:1530-1531 O '56. (MLRA 10:1)

1. Botanicheskiy institut imeni V.L. Komarova Akademii nauk SSSR.
(Seeds)

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0012408

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L. PIDOTTI, O.A.

2. USSR (600)

4. Germination

7. Germinating ability of seeds of perennial graminaceous plants as a function of the terms of storage. Trudy Bot. inst. AN SSSR. Ser. 6 no.2, 1952

9. Monthly list of Russian Accessions, Library of Congress, March 1953, Unclassified

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0012408

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001240

ARTYUSHENKO, Z.T.; VASIL'YEV, I.V.; GZYRYAN, M.S.; GOLOVACH, A.G.; GRUBOV, V.I.; ZAMYATNIN, B.N.; PIDOTTI, O.A.; PILIPENKO, F.S.; POLETIKO, O.M., kand.biolog.nauk; RODIONENKO, G.I.; RUSANOV, F.N.; SAAKOV, S.G.; SOKOLOV, S.Ya., prof., doktor biolog.nauk, red.; FEDOROV, Al.A.; SHIPCHINSKIY, N.V. [deceased]; SHUL'GINA, V.V.; SHUKHOBODSKIY, B.A.; GOLOVNIN, M.I., red. izd-va; KRUGLIKOVA, N.A., tekhn.red.

[Trees and shrubs of the U.S.S.R.; wild, cultivated, and promising exotic trees and shrubs] Derev'ia i kustarniki SSSR; dikorastushchie, kul'tiviruemye i perspektivnye dlia introduktsii. Moskva. [Vol.4. Angiosperms: Leguminosae - Punicaceae] Pokrytosemennye: Semeistva bobovye-granatovye. 1958. 973 p. (MIRA 11:12)

1. AN SSSR. Botanicheskiy institut.
(Angiosperms) (Trees) (Shrubs)

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0012408

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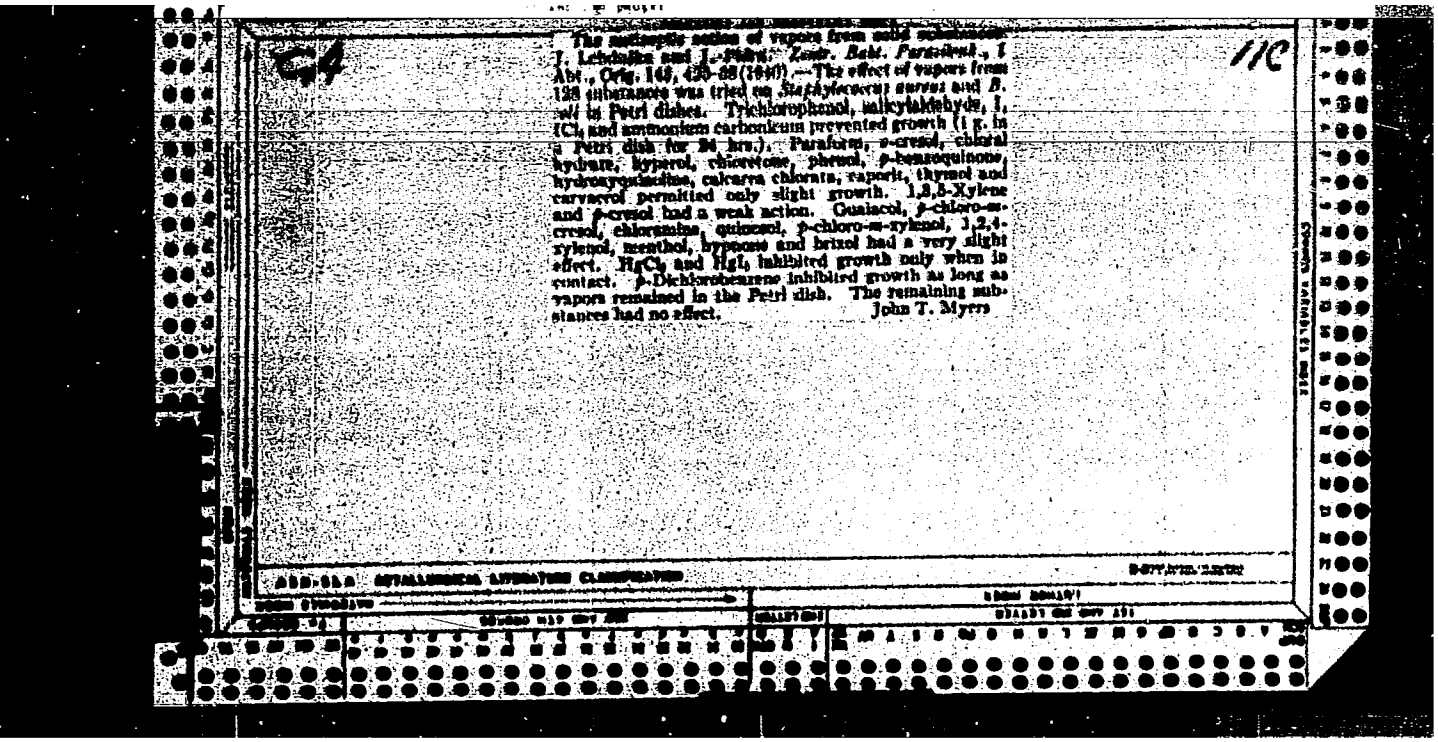

C4

IIC

The antiseptic action of vapors from solid substances.
J. Lebbadin and J. Pálfy: *Zentr. Bakt. Parasitenk., I Abt., Orig.* 146, 439–68 (1940).—The effect of vapors from 128 substances was tried on *Staphylococcus aureus* and *B. coli* in Petri dishes. Trichlorophenol, salicylaldehyde, I_2, CCl_4 and ammonium carbonicum prevented growth (1 g. in a Petri dish for 24 hrs.). Parafuran, *o*-cresol, chloral hydrate, lysol, chloretone, phenol, *p*-benzoquinone, hydroxyquinoline, calcarea chlorata, vaporit, thymol and carvacrol permitted only slight growth. 1,3,5-Xylene and *p*-cresol had a weak action. Guaiacol, *p*-chloro-*m*-cresol, chloramine, quinosol, *p*-chloro-*m*-xylenol, 1,2,4-xylenol, menthol, hypocaus and britol had a very slight effect. $HgCl_2$ and HgI, inhibited growth only when in contact. *p*-Dichlorobenzene inhibited growth as long as vapors remained in the Petri dish. The remaining substances had no effect. John T. Myers

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KOVAL'CHUK, A.A.; PIDPALYY, G.P.; POSTNYY, A.I.

Functional state of the adrenal cortex in patients with vibratory disease of first and second stage. Vrach. delo no.10:114-117 O '63. (MIRA 17:2)

1. Krivorozhskiy institut gigiyeny truda i professional'nykh zabolevaniy.

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0012408

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001240

PIDPALYY, G.P. (Krivoy Rog); STESHENKO, I.A. (Krivoy Rog)

Combination of silicosis, tuberculosis and cancer of the lungs. Kaz. med. zhur. no.2:63-64 Mr-Ap '62. (MIRA 15:6)
(TUBERCULOSIS) (LUNGS--CANCER)
(LUNGS--DUST DISEASES)

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0012408

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001240

SCHARRAG, Vilem, PIBRA,

Colorir

Prof

S

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"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001240

SCHARHAG, Vilem; PIDRA, Egon

Identification of wood stains. Drevo 18 no.1:15-17 Ja '63.

1. Spolek pro chemickou a hutni vyrobu, n.p., Usti nad Labem.

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0012408

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001240

SCHARHAG, Vilem; PIDRA, Egon

Testing the Spolcxyl white T. Drevo 17 no.4:117-118 Ap '62.

1. Spolek pro chemickou a hutni vyrobu, Usti nad Labem.

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0012408

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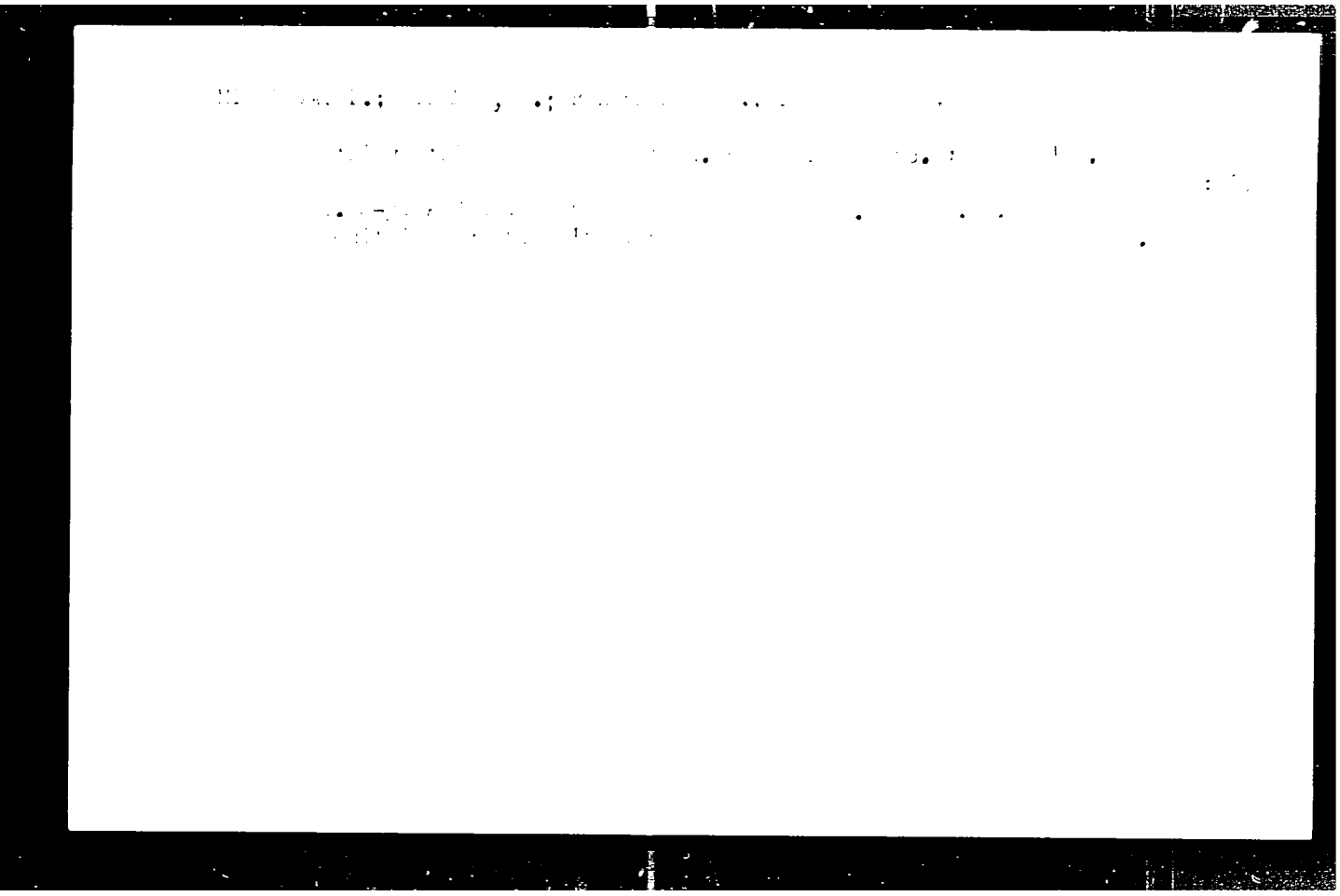

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0012408

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001240

MIHULOVA, L.; PIDRMAN, V.; JURKOVIC, V. prof. MUDr.; HANKA, V.

Diagnostic significance of forms of fibrillation curves. Vnitrni lek. 11 no.6:562-565 Je'65.

1. II. katedra vnitrniho lekarstvi LF Karlovy University v Hradci Kralove (prednosta: prof. MUDr. Vilo Jurkovic).

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0012408

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001240

PIDE..., Vladimir; ...LOVA, L...; ...MET, A...; ZA... K...

The significance of the B-lead in the diagnosis of left ventricular hypertrophy. Sborn. ved. prac. lek. fak. Karlov. Hradci. 7 no.5:665-671 '64.

1. II. interní klinika a katedra vnitřních nemocí (přednosta: prof. MUDr. V. ...ovic), Lékařské fakulty Karlovy University v Hradci Králové.

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0012408

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001240

MIHULOVA, Libuse; PIDRMAN, Vladimir; BELOBRADEK, Zdenek; JURKOVIC, Vilo.

Atrioatrial dissociation. Sborn. ved. prac. lek. fak. Karlov. univ. (Hrad. Kral.) 6 no.5 suppl. 643-646 '63

1. II. katedra vnitrniho lekarstvi; (prednosta: prof. MUDr. V. Jurkovic), Karlova univerzita v Hradci Kralove.

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0012408

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001240

SIDOROV, B.M.; PIDSAN, D.I.

Mechanization of the loading of potatoes and other bulk materials.
Trudy Ukr.NIISP no.8:108-115 '63. (MIRA 17:3)

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0012408

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001240

SIDOROV, B.M.; PIVOVAR, E.I.

Standardization and packing of the vitaminized biomycin [illegible] preparation [illegible]. Trudy Tarkhil. n.-i. in-ta 1:17-19 '64.

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0012408

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001240

ACCESSION NR: AP4023368 S/0198/64/010/002/0181/0189

AUTHOR: Pidstry*gach, Ya. S. (Podstrigach, Ya. S.) (L'viv); Kolyano, Yu. M. (L'viv)

TITLE. The two-dimensional temperature problem in elasticity theory for a semi-infinite disk, along whose edge the heat source moves

SOURCE: Pry*kladna mekhanika, v. 10, no. 2, 1964, 181-189

TOPIC TAGS: two-dimensional temperature problem, elasticity theory, elastic semi-infinite disk, isotropic homogeneous disk, Fourier integral transform, Laplace integral transform, probability integral, temperature field, temperature stress, Struve function, Bessel function, MacDonald function asymptotic heat condition, stationary heat condition

ABSTRACT: Using Fourier and Laplace integral transforms, the authors find a non-stationary temperature field of the form

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$$l(x, y, \tau) = \frac{q_0}{8\pi\delta\lambda}\int_0^{\tau} e^{-\omega^2(\tau-\tau_0)-\frac{x^2+(y-v\tau_0)^2}{4(\tau-\tau_0)}}\frac{d\tau_0}{\tau-\tau_0} =$$

$$= \frac{q_0}{4\pi\delta\lambda}[1+\mu(\varrho, \omega)]K_0(\varrho)e^{-(y-v\tau)\frac{v}{2a}}, \qquad (3)$$

where

$$\varrho = \frac{1}{2a}\sqrt{[v^2+(2a\alpha)^2][x^2+(y-v\tau)^2]}; \qquad \omega = \tau\sqrt{\frac{v^2+(2a\alpha)^2}{x^2+(y-v\tau)^2}}.$$

$\mu(\varrho, \omega)$ is the Ry*kalin function [Ry*kalin, N. N., The thermal bases of welding, part I, Izd-vo AN SSSR, M.-L., 1947], and $K_0(\varrho)$ is a zero-order MacDonald function. The authors also find the corresponding temperature stresses in a thin elastic semi-infinite disk of the form:

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$$X_n = -2Na\int_0^\tau e^{-\varkappa^2 a(\tau-\tau_0)}\left\{\frac{2x^2(3|z_0|^2-4x^2)}{|z_0|^6}+\right.$$

$$+\frac{x[2a(\tau-\tau_0)(4x^2-|z_0|^2)-|z_0|^4]}{2\sqrt{\pi}[a(\tau-\tau_0)]^{3/2}|z_0|^4}+\mathrm{Re}\left[\left(\frac{xz_0}{4a^2(\tau-\tau_0)^2}+\right.\right.$$

$$\left.\left.+\frac{2x+z_0}{z_0^3}-\frac{x+z_0}{2a(\tau-\tau_0)z_0}\right)e^{\frac{z_0^2}{4a(\tau-\tau_0)}}\operatorname{erfc}\left(\frac{z_0}{2\sqrt{a(\tau-\tau_0)}}\right)\right]+e^{-\frac{|z_0|^2}{4a(\tau-\tau_0)}}\times$$

$$\left.\times\left[\frac{|z_0|^2-x^2}{2a(\tau-\tau_0)}-\frac{2x^2}{|z_0|^2}+1\right]\frac{1}{|z_0|^2}\right\}d\tau_0.$$

$$Y_n = 2Na\int_0^\tau e^{-\varkappa^2 a(\tau-\tau_0)}\left\{\frac{2}{|z_0|^6}(4x^2-|z_0|^2)(|z_0|^2-x^2)+\right.$$

$$+\frac{x[2(4x^2-3|z_0|^2)(\tau-\tau_0)a-|z_0|^4]}{2\sqrt{\pi}[a(\tau-\tau_0)]^{3/2}|z_0|^4}+\mathrm{Re}\left[\left(\bar{z}_0 z_0^{-3}+\frac{z_0-x}{2a(\tau-\tau_0)z_0}+\right.\right.$$

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$$+\frac{xz_0}{4a^2(\tau-\tau_0)^2}\Big)e^{\frac{z_0^2}{4a(\tau-\tau_0)}}\operatorname{erfc}\left(\frac{z_0}{2\sqrt{a(\tau-\tau_0)}}\right)\Big]-e^{-\frac{|z_0|^2}{4a(\tau-\tau_0)}}\left[\frac{2x^2}{|z_0|^2}-\right.$$

$$\left.-1+\frac{x^2}{2a(\tau-\tau_0)}\right]\frac{1}{|z_0|^2}\Big\}d\tau_0 \qquad (14)$$

$$X_s=2Nax\int_0^\tau e^{-\nu^2a(\tau-\tau_0)}\left\{\frac{4(y-v\tau_0)}{|z_0|^4}\left[\frac{2x^2}{|z_0|^2}-1-\frac{x}{\sqrt{a\nu(\tau-\tau_0)}}\right]-\right.$$

$$-i\operatorname{Im}\left[\left(\frac{z_0}{4a^2(\tau-\tau_0)^2}-\frac{1}{2a(\tau-\tau_0)z_0}+\frac{2}{z_0^3}\right)e^{\frac{z_0^2}{4a(\tau-\tau_0)}}\times\right.$$

$$\left.\times\operatorname{erfc}\left(\frac{z_0}{2\sqrt{a(\tau-\tau_0)}}\right)\right]+2e^{-\frac{|z_0|^2}{4a(\tau-\tau_0)}}\frac{y-v\tau_0}{|z_0|^2}\left[\frac{1}{4a(\tau-\tau_0)}+\right.$$

$$\left.\left.+\frac{1}{|z_0|^2}\right]\right\}d\tau_0$$

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where

$$\operatorname{erfc}(u) = 1 - \operatorname{erf}(u) = \frac{2}{\sqrt{\pi}} \int_u^\infty e^{-u_0^2} du_0; \qquad z_0 = x + l(y - vt_0).$$

here

$$\operatorname{erf}(u) = \frac{2}{\sqrt{\pi}} \int_0^u e^{-u_0^2} du_0$$

is the probability integral.

The disk is homogeneous and isotropic, and along its border the heat source moves with constant speed. In addition, heat radiation is emitted from the lateral surfaces. As a special case, the following solution is found for the problem of a heat insulated semi-infinite disk:

$$t(x, y, \tau) = \frac{q_0}{8\pi\lambda\delta} e^{-(y - v\tau)\frac{v}{2a}} K_0^*(Q, \omega).$$

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$$X_n = -Na\left\{\frac{4x^2}{v}\left(\frac{y-v\tau}{|z|^4}-\frac{y}{r^4}\right)+\int_0^\tau\left\{\frac{x[2a(\tau-\tau_0)(4x^2-|z_0|^2)-|z_0|^4]}{\sqrt{\pi}[a(\tau-\tau_0)]^{3/2}|z_0|^6}+\right.\right.$$

$$+2\mathrm{Re}\left[\left(\frac{xz_0}{4a^2(\tau-\tau_0)^2}+\frac{2x+z_0}{z_0^2}-\frac{x+z_0}{2a(\tau-\tau_0)z_0}\right)e^{\frac{z_0^2}{4a(\tau-\tau_0)}}\times\right.$$

$$\left.\left.\times\operatorname{erfc}\left(\frac{z_0}{2\sqrt{a(\tau-\tau_0)}}\right)\right]\right\}d\tau_0-\frac{2y}{v^2}e^{-\frac{r^2}{4a\tau}}+\left[\frac{y-v\tau}{|z|}K_{-1}(Q,\omega)+\right.$$

$$\left.+K_0^*(Q,\omega)\right]\frac{1}{2a}e^{-\frac{x}{2a}(v-v\tau)}\Bigg\}.$$

$$Y_n = Na\left\{\frac{4}{v}\left(\frac{y^2}{r^4}-\frac{(y-v\tau)^2}{|z|^6}\right)+\int_0^\tau\left\{\frac{x[2(4x^2-3|z_0|^2)(\tau-\tau_0)a-|z_0|^4]}{\sqrt{\pi}[a(\tau-\tau_0)]^{5/2}|z_0|^6}+\right.\right.$$

$$+2\mathrm{Re}\left[\left(\bar{z}_0x_0^{-3}+\frac{z_0-x}{2a(\tau-\tau_0)z_0}+\frac{xz_0}{4a^2(\tau-\tau_0)^2}\right)e^{\frac{z_0^2}{4a(\tau-\tau_0)}}\times\right.$$

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$$\times \operatorname{erfc}\left(\frac{z_0}{2\sqrt{a(\tau-\tau_0)}}\right)\Big]\Big\}d\tau_0 - \frac{2y}{vr^3}e^{-\frac{r^2}{4a\tau}} + \left[\frac{y-v\tau}{|z|}K^*_{-1}(Q,\omega) - \right.$$

$$\left. - K^*_0(Q,\omega)\right]\frac{1}{2a}e^{-\frac{v}{2a}(y-v\tau)}\Big\}. \qquad (15)$$

$$X_y = Nax\left\{\frac{4}{v}\left[\frac{y^2}{r^4} - \frac{(y-v\tau)^2}{|z|^4}\right] - 2\int_0^\tau\left\{\frac{4x(y-v\tau_0)}{\sqrt{a\pi(\tau-\tau_0)}\,|z_0|^3} + \right.\right.$$

$$+ i\,\mathrm{Im}\left[\left(\frac{z_0}{4a^2(\tau-\tau_0)^2} - \frac{1}{2a(\tau-\tau_0)z_0} + \frac{2}{z_0^3}\right)\times\right.$$

$$\left.\times e^{\frac{r_0^2}{4a(\tau-\tau_0)}}\operatorname{erfc}\left(\frac{z_0}{2\sqrt{a(\tau-\tau_0)}}\right)\right]\Big\}d\tau_0 - \frac{2}{vr^3}e^{-\frac{r^2}{4a\tau}} +$$

$$\left.+ \frac{1}{2a|z|}e^{-\frac{v}{2a}(y-v\tau)}K^*_{-1}(Q,\omega)\right\}.$$

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where

$$\varrho = \frac{v}{2a}|z|; \quad \omega = \frac{v\tau}{|z|}; \quad z = x + i(y - v\tau); \quad r = \sqrt{x^2 + y^2};$$

$$\omega_1 = \frac{v\tau_1}{|z|}; \quad K_m(\varrho, \omega) = \int_0^\infty \omega_1^{m-1} \exp\left[-\frac{\varrho}{2}\left(\omega_1 + \frac{1}{\omega_1}\right)\right] d\omega_1, \quad m = 0, -1.$$

The following formulas are obtained for determing the temperature field and the temperature stresses under asymptotic heat conditions in a semi-infinite, heat-insulated disk in non-stationary coordinates which move along with the source at a constant speed:

$$t(x_1, y_1) = \frac{q_0}{4\pi\lambda\delta} e^{-\frac{vx_1}{2a}} K_0\left(\frac{vr_1}{2a}\right),$$

$$X_z = -Na\left\{\frac{4x_1^2 y_1}{vr_1^4} + \int_0^\infty \left\{ 2\mathrm{Re}\left[\left(\frac{x_1 z_1}{4a^2 \tau_1^2} + \frac{2x_1 + z_1}{z_1^3} - \frac{x_1 + z_1}{2a\tau_1 z_1}\right) e^{\frac{z_1^2}{4a\tau_1}} \times\right.\right.$$

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$$\times \operatorname{erfc}\left(\frac{z_1}{2\sqrt{a\tau_1}}\right)\Big] + \frac{x_1\left[2a\tau_1\left(4x_1^2 - |z_1|^2\right) - |z_1|^4\right]}{\sqrt{\pi}\,(a\tau_1)^{3/2}\,|z_1|^4}\Big\}\,d\tau_1 +$$

$$+\left[K_0\left(\frac{vr_1}{2a}\right) + \frac{y_1}{r_1}K_1\left(\frac{vr_1}{2a}\right)\right]e^{-\frac{vx_1}{2a}}\Big\},$$

$$Y_p = Na\left\{-\frac{4y_1^2}{vr_1^4} + \int_0^\infty\left\{2\mathrm{Re}\left[\left(\bar{z}_1 z_1^{-3} + \frac{z_1 - x_1}{2a\tau_1 z_1} + \frac{x_1 z_1}{4a^2\tau_1^2}\right)e^{\frac{z_1^2}{4a\tau_1}} \times \right.\right.\right. \quad (16)$$

$$\times \operatorname{erfc}\left(\frac{z_1}{2\sqrt{a\tau_1}}\right)\Big] + \frac{x_1\left[2\left(4x^2 - 3|z_1|^2\right)\tau_1 a - |z_1|^4\right]}{\sqrt{\pi}\,(a\tau_1)^{3/2}\,|z_1|^4}\Big\}\,d\tau_1 +$$

$$+\left[\frac{y_1}{r_1}K_1\left(\frac{vr_1}{2a}\right) - K_0\left(\frac{vr_1}{2a}\right)\right]e^{-\frac{vx_1}{2a}}\Big\}.$$

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$$X_y = N a x_1 \left\{ -\frac{4y_1^2}{\sigma r_1^2} - 2\int_0^{\infty} \left\{ \frac{4x_1(y_1+\sigma\tau_1)}{\sqrt{a\pi\tau_1}\,|z_1|^3} + i\,\mathrm{Im}\left[\left(\frac{z_1}{4a^2\tau_1^2} - \frac{1}{2a x_1 \tau_1} + \right.\right.\right.$$

$$\left.\left.\left. + \frac{2}{x_1^2} \right) e^{\frac{z_1^2}{a\tau_1}} \operatorname{erfc}\left(\frac{z_1}{2\sqrt{a\tau_1}} \right) \right] \right\} d\tau_1 + \frac{1}{\sigma r_1} K_1\left(\frac{\sigma r_1}{2a} \right) e^{-\frac{\sigma y_1}{2a}} \right\},$$

where K_1 is a first order MacDonald function, and

$$r_1 = \sqrt{x_1^2 + y_1^2}; \qquad z_1 = x_1 + i(y_1 + \sigma\tau_1).$$

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Finally, the following solution to the problem is obtained for a stationary source under stationary heat conditions:

$$t = \frac{q_0}{4\pi\lambda\delta} K_0(\varkappa r), \tag{18}$$

$$X_p = -\varkappa^2 \left\{ \mathrm{Re}\left[\left(\frac{1}{\varkappa\rho} + \frac{2x}{\rho^2\varkappa} - \varkappa x \right) (H_1(\varkappa\rho) - Y_1(\varkappa\rho)) - \right.\right.$$
$$\left. - \left(1 + \frac{x}{\rho}\right)(H_0(\varkappa\rho) - Y_0(\varkappa\rho)) \right] + \frac{2\varkappa x}{\pi} + \frac{4x^2(3y^2 - x^2)}{\pi\varkappa^2 r^6} -$$
$$\left. - \frac{2}{r^2\pi} \left[\frac{x^2 - y^2}{\varkappa r} K_1(\varkappa r) - y^2 K_0(\varkappa r) \right] \right\},$$

$$Y_p = \varkappa N \left\{ \mathrm{Re}\left[\left(\frac{2x}{\rho^2\varkappa} - \varkappa x - \frac{1}{\rho\varkappa} \right) (H_1(\varkappa\rho) - Y_1(\varkappa\rho)) + \right.\right. \tag{19}$$
$$\left. + (H_0(\varkappa\rho) - Y_0(\varkappa\rho)) \left(1 - \frac{x}{\rho}\right) \right] + \frac{2\varkappa x}{\pi} + \frac{4(3x^2 - y^2)y^2}{\pi\varkappa^2 r^6} -$$

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$$-\frac{2}{\pi r^2}\left[\frac{x^2-y^2}{\pi r^2}K_1(\pi r)+x^2K_0(\pi r)\right]\Bigg\}.$$

$$X_y=\pi N\left\{\pi x i\,\mathrm{Im}\left[\left(1-\frac{2}{(\pi\rho)^2}\right)(H_1(\pi\rho)-Y_1(\pi\rho))+\frac{H_0(\pi\rho)-Y_0(\pi\rho)}{\pi\rho}\right]+\right.$$

$$\left.+\frac{8xy(x^2-y^2)}{\pi r^4 r^2}+\frac{2xy}{\pi r^2}\left[\frac{2K_1(\pi r)}{\pi r}+K_0(\pi r)\right]\right\}.$$

where $\rho=x+iy$. $H_\nu(\pi\rho)$ is a Struve function with real argument ($\nu=0; 1$); $Y_\nu(\pi\rho)$ is a second type Bessel function with real argument; and $K_\nu(\pi r)$ is a MacDonald function. Graphs are drawn for the distribution of temperature stresses along the coordinate axes under stationary heat conditions. Orig. art. has: 21 formulas, 4 figures.

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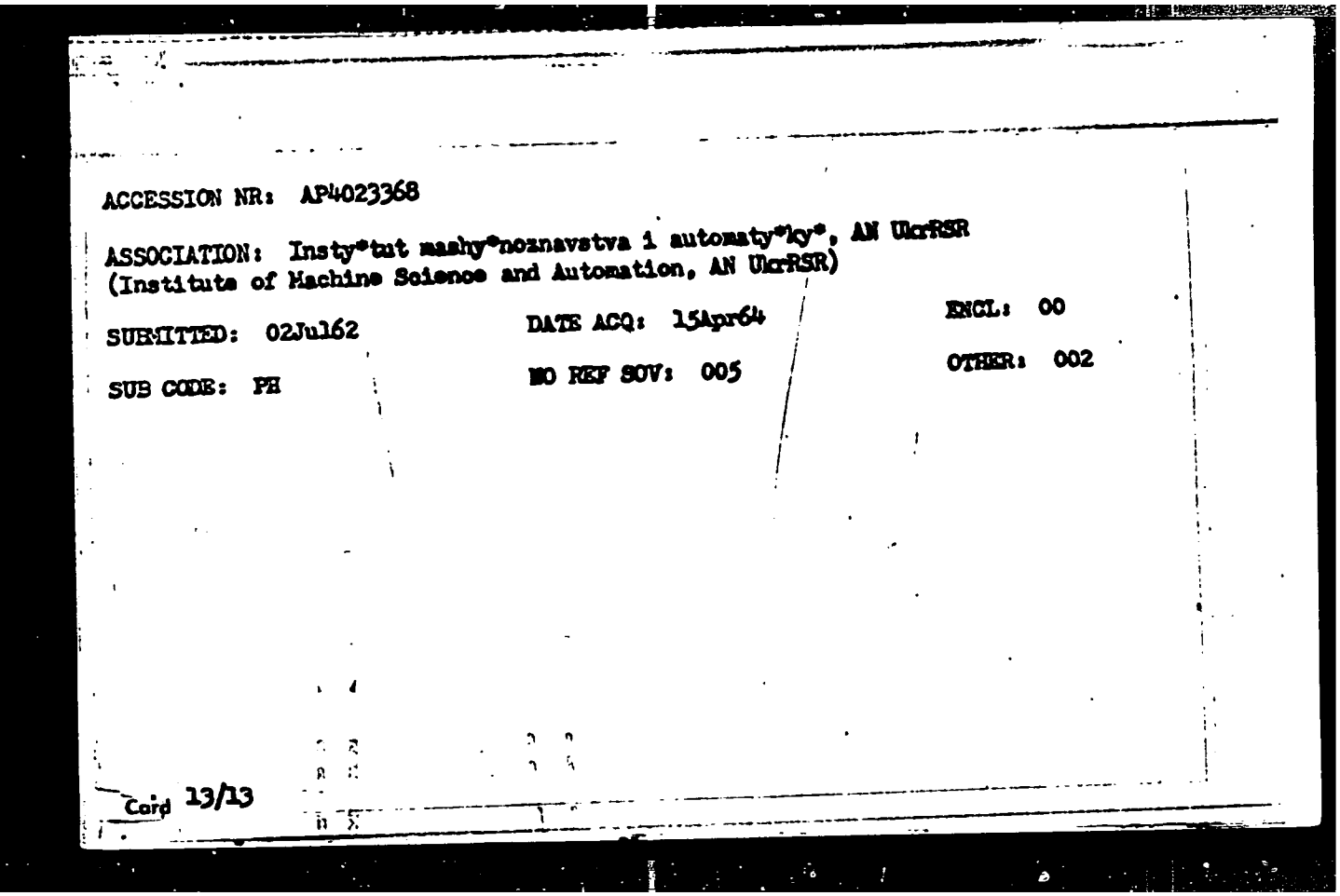

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ASSOCIATION: Insty*tut mashy*noznavstva i automaty*ky*, AN UkrRSR
(Institute of Machine Science and Automation, AN UkrRSR)

SUBMITTED: 02Jul62 DATE ACQ: 15Apr64 ENCL: 00

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SHABANOV, P.P.; PIDZHAKOV, N.N., zhurnalist (Dolmatovskiy rayon, Kurganskaya oblast')

A foresighted specialist. Veterinariia 42 no.12:3-4 D '65. (MIRA 19:1)

1. Glavnyy veterinarnyy vrach Dolmatovskogo rayona, Kurganskoy oblasti (for Shabanov).

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L 41136-66 EWT(d)/EWT(m)/EWP(k)/EWP(h)/T/EWP(l)/EWP(v)/EWP(t)/ETI IJP(c)

ACC NR: AP6025611 SOURCE CODE: UR/0413/66/000/013/0051/0051

INVENTOR: Timoshenko, A. N.; Pidzharyy, A. F.; Bessonov, A. S.

ORG: none

TITLE: Injector-type torch for gas-shielded arc welding. Class 21, No. 183304

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 13, 1966, 51

TOPIC TAGS: arc welding, inert gas welding, welding torch

ABSTRACT: This Author Certificate introduces an injector-type welding torch for nonconsumable-electrode arc welding with combined inert gas and flux shielding. In order to simplify the torch design and ensure

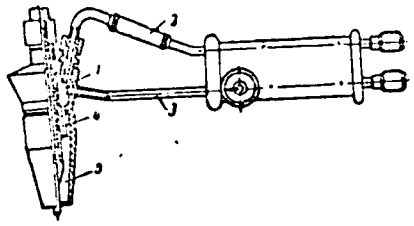

Fig. 1. Injector-type welding torch

UDC: 621.791.8.034:621.791.8

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a continuous feed of the gas-flux mixture to the welding zone, the torch head (see Fig. 1) is provided with ring-shaped chamber 1 with inlets for injector pipe 2 and gas-flux-carrying pipe 3. The chamber is connected to nozzle 5 by ring-shaped channel 4. Orig. art. has: 1 figure.

[DV]

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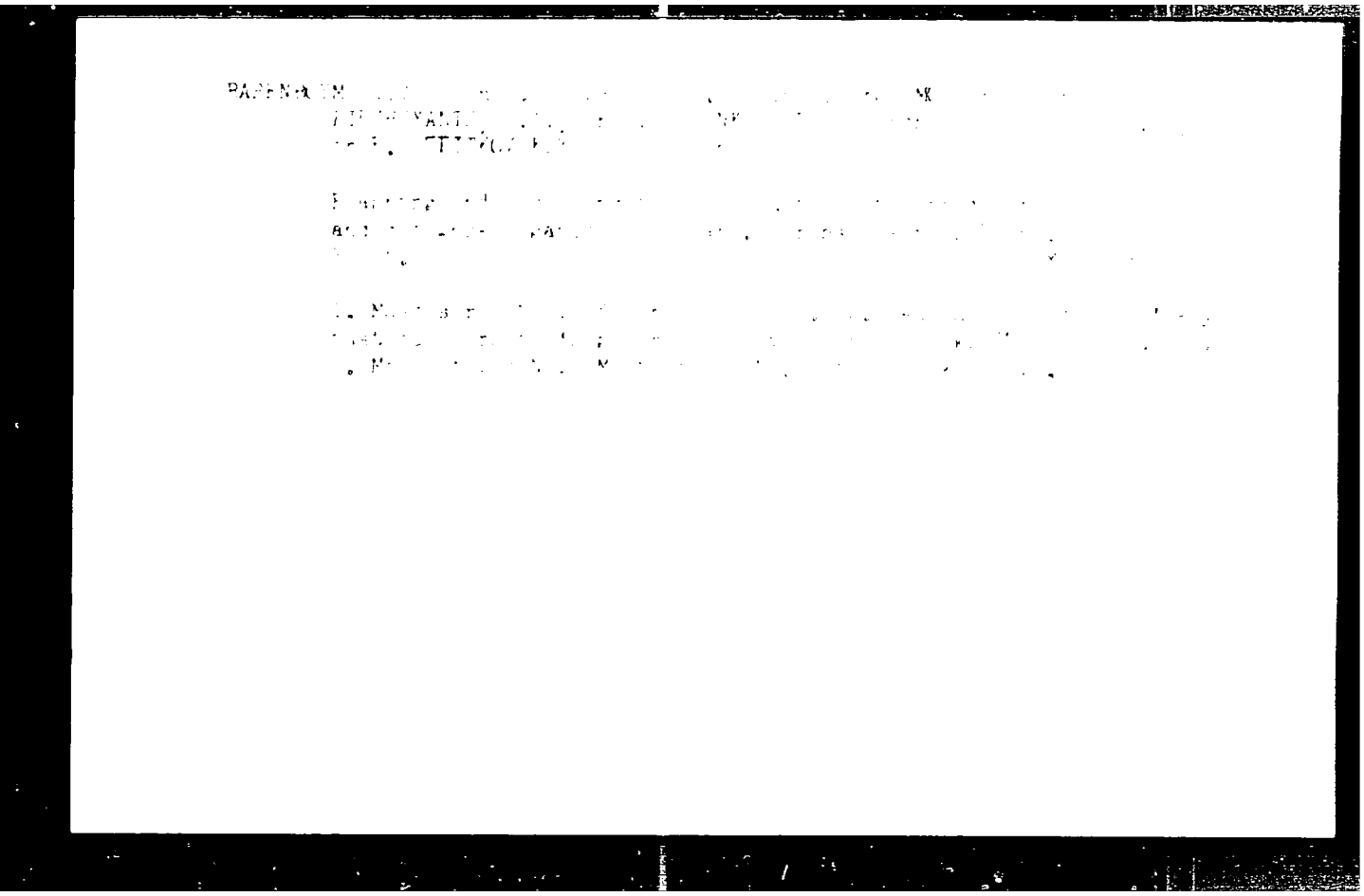

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KLISENKO, Yu.F.; PIDZHIYANTS, S.A.; RUTKOVSKIY, B.I.; RYBAL'SKIY, V.I.; SAPOZHNIKOV, F.V.; SLIPCHENKO, P.S.; SHIMKEVICH, K.A.

Flow-line construction of large thermal electric plan . Prom. stroi. 39 no.10:8-13 O '61. (MIRA 14:10)

1. Yuzhenergostroy (for Klisenko). 2. Akademiya stroitel'stva i arkhitektury USSR (for Pidzhiyants, Rutkovskiy, Rybal'skiy, Slipchenko). 3. Glavenergoproyekt (for Sapozhnikov). 4. Orgenergostroy (for Shimkevich).
(Building) (Electric power plants)

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PIDZHYAN, G. O.

Mineralogy of ores in the Kadzharan copper and molybdenum deposit.
Izv. AN Arm. SSR. Geol. i geog. nauki 13 no.2:31-5[illegible] '60.
(MIRA 13:5)

1. Institut geologicheskikh nauk AN ArmSSR.
(Kadzharan region (Armenia)--Mineralogy)

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0012408

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001240

PIDZHYAN, G.O.

Some geochemical characteristics of rocks in the region of the Dastakert copper-molybdenum deposit. Zap.Arm.otd.Vses.min.ob-va no.1:92-100 1959. (MIRA 14:10)
(Sisian District--Geochemistry)

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PIDZHYAN, G.O.

Mercurial mineralization on the northeastern shore of Lake Sevan. Izv. AN Arm. SSR. Ser. geol. i geog. nauk 10 no.3:45-57 '57. (MIRA 10:12)

1. Institut geologicheskikh nauk AN ArmSSR.
(Sevan, Lake--Mercury ores)

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MAGAK'YAN, I.G., akademik; PIDZHYAN, G.O.; PARAMAZYAN, A.S.

Rhenium in copper-molybdenum deposits of the Armenian S.S.R. Dokl. AN Arm. SSR 37 no.2:77-81 '63. (MIRA 17:)

1. Institut geologicheskikh nauk AN Armyanskoy SSR. Akademiya nauk Armyanskoy SSR (for Magak'yan).

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MAGAK'YAN, I.G.; MKRTCHYAN, S.S.; PIDZHYAN, G.O.

Conditions of the formation and location of copper-molybdenum porphyritic deposits in the Armenian S.S.R. Zakonom. razm. p lezn. iskop. 5:321-325 '62. (MIRA 15:12)

(Armenia--Copper ores) (Armenia--Molybdenum ores)

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PIDZHYAN, G.O.

Germanium minerals and germanium-bearing sulfides from a copper-molybdenum deposit. Dokl.AN Arm.SSR 30 no.3: 163-167 '60. (MIRA 13:8)

1. Institut geologicheskikh nauk Akademii nauk Armyanskoy SSR. Predstavleno akad. AN Armyanskoy SSR I.G.Magak'yanom.
(Germanium)

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"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001240

PIDZHYAN, G.O.

Geochemistry of ores in the Dastakert copper-molybdenum deposit. Izv.AN Arm.SSR.Ser.geol. i geog.nauk 11 no.4:9-21 '58. (MIRA 12:1)

1. Institut geologicheskikh nauk AN ArmSSR.
(Dastakert region--Copper ores)
(Dastakert region--Molybdenum ores)

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0012408

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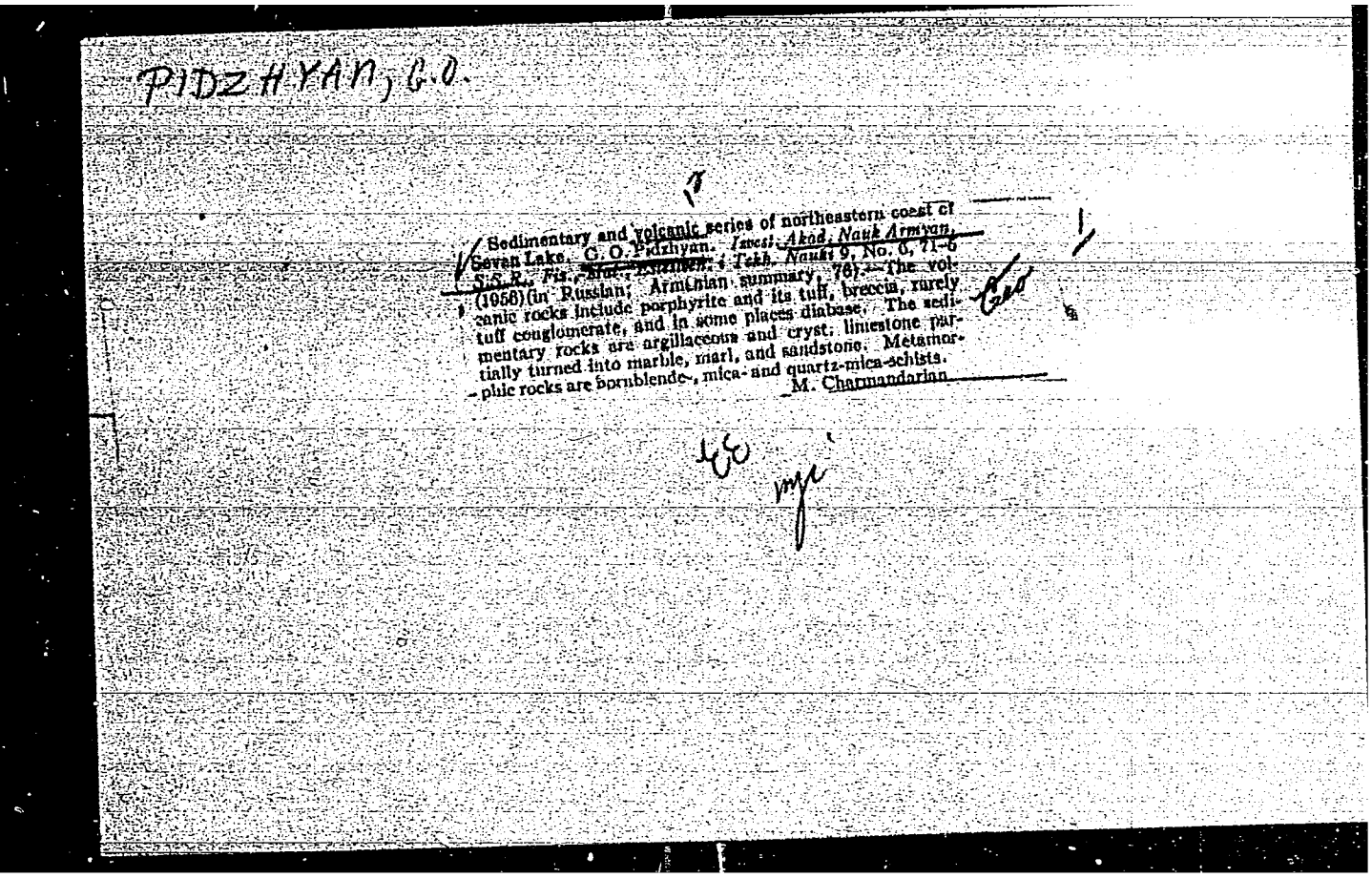

PIDZHYAN, G.O.

Sedimentary and volcanic series of northeastern coast of Sevan Lake. G. O. Pidzhyan. *Izvest. Akad. Nauk Armyan. S.S.R., Fiz.-Mat., Estest. i Tekh. Nauki* 9, No. 6, 71-6 (1956)(in Russian; Armenian summary, 76).—The volcanic rocks include porphyrite and its tuff, breccia, rarely tuff conglomerate, and in some places diabase. The sedimentary rocks are argillaceous and cryst. limestone partially turned into marble, marl, and sandstone. Metamorphic rocks are hornblende-, mica- and quartz-mica-schists.

M. Charmandarian

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PIDZHVAN, G. O.

Mercury mineralization on the northeastern shore of Lake Sevan. G. O. Pidzhvan. *Izvest. Akad. Nauk Armyan S.S.R., Ser. Geol. i Geograf. Nauk* 10, No. 3, 45-57 (1957)(in Russian).—Mineralogical and chem. data on cores are given. Qual. spectral analyses of the cinnabar rocks are given.
A. Volborth

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0012408

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001240

PIDZHYAN, G.O.

Geochemistry of ores in the Dastakert copper-molybdenum deposit.
Izv.AN Arm.SSR Ser.geol.i geog.nauk v. 11 no.4:9-21 '58.
(MIRA 12:1)

1. Institut geologicheskikh nauk AN ArmSSR.
(Dastakert region--Copper ores)
(Dastakert region--Molybdenum ores)

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0012408

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001240

PIDZHYAN, G.O.

Hypogene bornite in the Dastakert deposit. Izv. AN Arm. SSR. Ser. geol. i geog. nauk 10 no. 5/6:81-83 '57. (MIRA 11:8)

1. Institut geologicheskikh nauk AN ArmSSR.
(Sisian Province--Bornite)

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0012408

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001240

ARAKELYAN, R.A.; PIDZHYAN, G.O.

Concerning B.G. Malkhasian's, IU.A. Leie's, and S.S. Vaniushin's works on the Kafan ore deposit. Izv. AN Arm. SSR. geol. i geog. nauk 11 no.2:87-92 '58. (MIRA 11:9)

1. Institut geologicheskikh nauk AN ArmSSR.
(Kafan District--Ore deposits)

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0012408

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001240

PIDZHYAN, G.O.

Garnets from the Gekhi River basin. Izv.AN Arm.SSR.Ser.FMET nauk 5 no.5:37-42 '52. (MLRA 9:8)

1. Institut geologicheskikh nauk AN Armyanskoy SSR.
(Gekhi Valley--Garnets)

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0012408

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001240

ARAKELYAN, R.A.; PIDZHYAN, G.O.

New data on the genesis and age of mineralization of the Kafan group deposits. Dokl.AN Arm.SSR 22 no.1:29-34 '56. (MLRA 9:7)

1.Institut geologicheskikh nauk Akademii nauk Armyanskoy SSR. Predstavleno I.G.Magak'yanom.
(Kafan District--Mineralogy)

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0012408

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001240

Tidzhyan, G. G.

New data about the origin and age of mineralization of the Kafansk field deposits. R. A. Arakelyan and G. G. Tidzhyan. *Doklady Akad. Nauk Armyan. S.S.R.* (1950) (in Russian, Armenian summary).—The geol., mineralogical, and chem. study showed the age of the Kafansk field (I) to be of pre-upper Jurassic period. Pyrite, chalcopyrite, sphalerite, and galena are predominant with some bornite, thenardite, and enargite; typical elements of the acid magma, such as Sb, W, and Mo, as well as those of the primary magma, such as Ni, Co, and Pt, are absent.

Elizabeth Barabash

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8

Chalcopyrite pseudomorphs after pyrite. G. O. Dolgikhyan. *Zapiski Vsesoyuz. Mineral. Obshchestva* (Mem. Russ. Mineral.) 79, 301-2(1950). In cavities and veinlets of strongly silicified granodiorites, good crystals of 0.5 to 2 cm. sizes are described, in pentagonal dodecahedra forms, with subordinate octahedra. They show the typical striation of pyrite on the faces. In reality, these crystals are pseudomorphs, with chalcopyrite and relict pyrite in their interior, pyrite in the external parts, as the macroscopic examn. of polished sections showed. Also metasomatic replacements of pyrite by sphalerite, galena, and chalcopyrite are observed. The pyrite is locally oxidized to limonite. The chalcopyrite is intergrown with bornite and sphalerite in lineal networks ("cymolin" structure). The chem. change of chalcopyrite to covellite and chalcocite is also observed. The change of pyrite to chalcopyrite is hydrothermal metasomatic, usually, this reaction was incomplete, as is shown by the chem. analysis and the relict structures.

W. Eitel

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0012408

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001240

L 22711-66 EWT(m)/EPF(n)-2/T/EWP(t) IJP(c) JD/JG/JXT(HS)
ACC NR: AP6009070 SOURCE CODE: UR/0185/66/011/003/0293/0299

AUTHOR: Bilyy, Ya. M.; Vyshnevs'kyy, V. N.—Vishnevskiy, V. N.; Hnyp, R. H.— Gnyp, R. G.; Lakhots'kyy, T. V.—Lakhotskiy, T. V.; Pidzyraylo, M. S.—Pidzyraylo, N. S.

ORG: L'vov State University im. I. Franko (L'vivs'kyy derzhuniversytet)

TITLE: Low-temperature x-ray luminescence of alkali halide single crystals with anion impurities

SOURCE: Ukrayins'kyy fizychnyy zhurnal, v. 11, no. 3, 1966, 293-299

TOPIC TAGS: luminescence, luminescence center, luminescence spectrum, luminescent material, x-ray effect, impurity level, anion, optic transition

ABSTRACT: The authors have investigated the concentration dependence of x ray luminescence of single crystals of NaCl-I, NaCl-Br, KCl-I, and KCl-Br grown from the melt by the Kiropoulos method, at a temperature of 100K. The impurity-ion concentration was 0.1, 1.0, 2, 5, 7, 10, 15, or 20% by weight in the melt. The spectrum was measured with a spectrophotometric setup based on a monochromator from the SF-4 spectrophotometer. The samples were several orders of magnitude thicker than the depth of penetration of the exciting x-radiation. The measurements were made first at 100K and then at higher temperatures. The results show that at 100K

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L 22711-66

ACC NR: AP6009070

at small impurity concentrations the x ray luminescence spectra of both crystals exhibit bands in the ultraviolet and in the visible region of the spectrum, due to transitions at the localized levels of the impurity. When the impurity concentration is increased, all x ray luminescent spectra acquire a band whose intensity is approximately proportional to the square of the impurity concentration; this band can apparently be regarded as the emission band of the paired ions of the impurity. The analysis of the spectra gives grounds for assuming that in most emission bands the core of the luminescent center is the impurity ion, which replaces the anion in the main substance. Orig. art. has: 4 figures. [02]

SUB CODE: 20/ SUBM DATE: 28May65/ ORIG REF: 003/ OTH REF: 013
ATD PRESS: 4229

Card 2/2 BK

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0012408

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001240

L 647-1-65 EWT(l)/EWT(m)/EWG(m)/EWP(t)/EWP(b) IJP(c) RDW/JD

ACCESSION NR: AP5015448 UR/0155/65/010/006/0691/0692

AUTHORS: Vyshnevs'kyy, V.N.; Hnyp, R.H.; Pidzyraylo, M.S.

TITLE: Violet photoluminescence of NaI(Tl) single crystals at 77K

SOURCE: Ukrayins'kyy fizychnyy zhurnal, v. 10, no. 6, 1965, 691-692

TOPIC TAGS: sodium compound, single crystal, telluride, scintillation detector, luminescence spectrum

ABSTRACT: The violet luminescence band of single crystals of NaI(Tl), excited by filtered mercury lines in the 280--312 nm range, has been investigated at 77K. The 10 x 10 x 5 mm crystals were cut in a dry box and enclosed in quartz cuvettes. These were lowered into liquid nitrogen. The investigations were carried out in a spectrometer setup with a UM-2 monochromator. In crystals with an activator concentration of about 1 x 10^{-4} mole Tl/mol NaI, the band is asymmetrical on the long-wavelength side (at smaller concentrations an almost

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L 64741-65

ACCESSION NR: AP5015448

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symmetrical structureless band is observed at 432 nm). At an activator concentration of about 3.7×10^{-4} mole Tl/mole NaI two maxima of almost equal intensity occur: at 429 and at 439 nm. A clear separation of the two bands occurs at a concentration of 1.3×10^{-3}, when the second maximum is considerably more intense and shifted somewhat to 444 nm. On aging this band increases considerably in intensity. The appearance of structure can be due either to a grouping of activator ions on the defects, leading to a change in the interaction of the lattice with the activator ions, or the radiation may be due to the $^3P_1 \rightarrow {}^1S_0$ and $^3P_0 \rightarrow {}^1S_0$ transitions and the probability of the latter increases with activator concentration. Orig. art. has: 1 figure.

ASSOCIATION: L'vivs'kiy derzhuniversi/ at im. Iv. Franka [L'vovskiy gosuniversitet im. I. Franko] (L'vov State University)

SUBMITTED: 01Feb65 ENCL: 00 SUB CODE: NP, OP

NR REF SOV: 003 OTHER: 002

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APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0012408

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001240

L 22712-66 EWT(m)/T/EWP(t) IJP(c) JD/JXT(HS)
ACC NR: AP6009071 SOURCE CODE: UR/0185/66/011/003/0300/0304

AUTHOR: Vyshnevs'kyy, V. N.—Vishnevskiy, V. N.; Pidzyraylo, M. S.—Pidzyraylo, N. S.

ORG: L'vov State University im. I. Franko (L'vivs'kyy derzhuniversytet)

TITLE: Luminescence of thallium iodide

SOURCE: Ukrayins'kyy fizychnyy zhurnal, v. 11, no. 3, 1966, 300-304

TOPIC TAGS: thallium compound, single crystal, polycrystal, photoluminescence, x ray effect, luminescence spectrum, luminescence quenching, quantum yield, ir phenomenon, crystal vacancy, activation energy

ABSTRACT: In view of the scarcity of reports of precision investigations of the luminescence of TlI and in view of the different interpretations of the nature of the luminescence centers, the authors have investigated photoluminescence and x ray luminescence of polycrystalline samples of TlI, obtained by zone melting with multiple passages through the zone, and also several single crystals grown by the Stockbarger method in quartz ampoules. The luminescence properties of the single and polycrystalline samples were approximately identical. The photoluminescence spectra were investigated with a spectrophotometer based on the UM-monochromator. The luminescence was excited by filtered mercury radiation at 366 and 315 nm, or

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ACC NR: AP6009071

else with ultraviolet rays from a mercury lamp (TRK-2) in the 250--400 nm band. The x-ray luminescence spectra were measured with a modified SF-4 spectrophotometer. The results show that the luminescence spectra of single-crystal TlI consist of four bands at 480, 545, 740, and 900 nm. The luminescence intensity of these bands depends on the preparation of the crystal, on its heat treatment, and on the spectral composition of the exciting radiation. The absolute quantum yield of the photoluminescence when excited with 366 nm line is 0.07 at 100K and decreases rapidly with rising temperature. The activation energies of the nonradiative transitions, determined by a method of temperature luminescence quenching was 0.05 and 0.09 ev for the 545 and 900 nm bands, respectively. The presence of the 480, 545, and 900 nm bands is apparently due to the presence of halide vacancies in the crystal. The nature of the 740 nm band is not presently clear as yet. The 740 nm band can be clearly seen in the luminescence spectrum of samples with weak infrared luminescence. The activation energies were determined from the temperature dependence of the luminescence intensity. Orig. art. has: 3 figures and 1 formula.

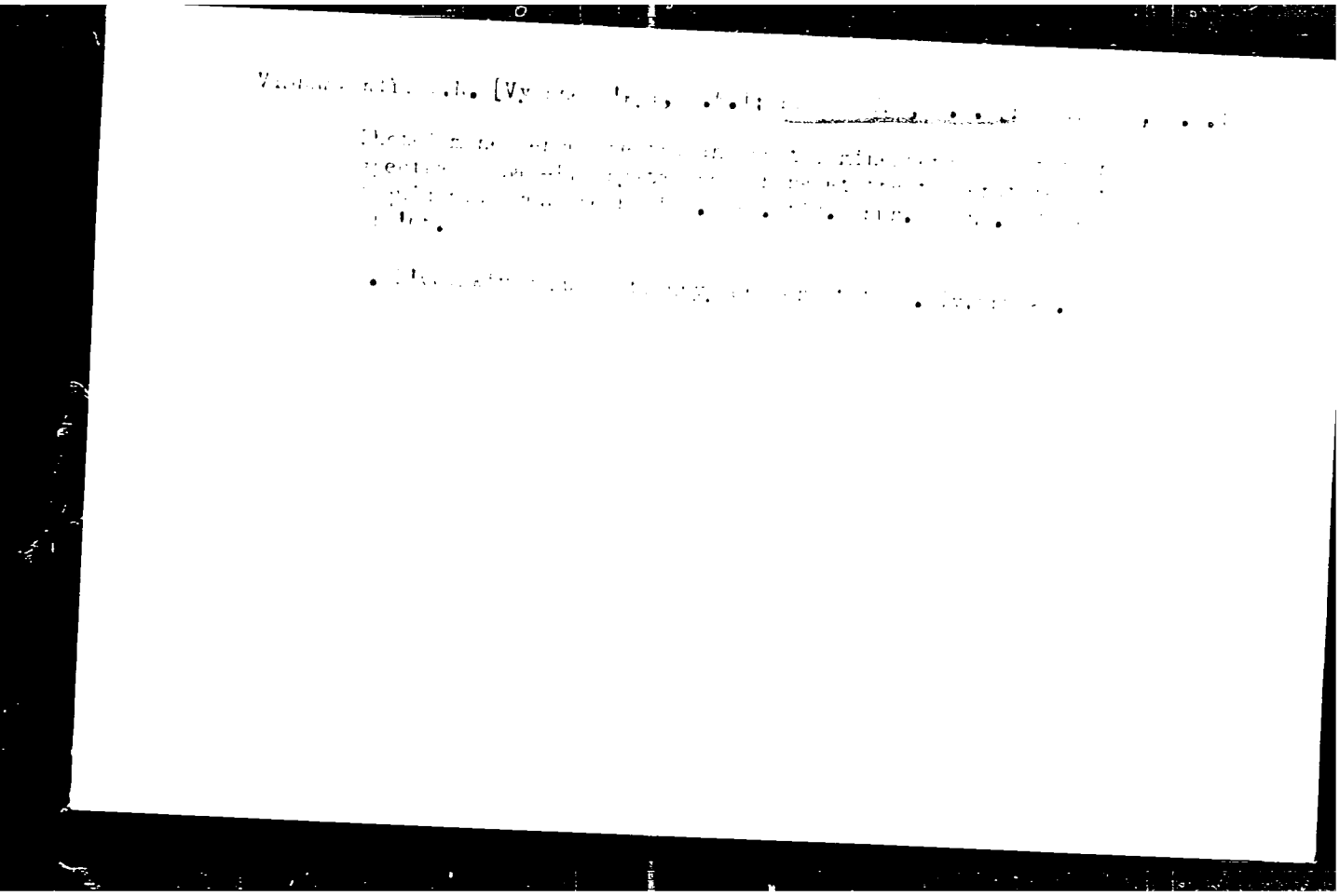
[02]

SUB CODE: 20/ SUBM DATE: 08May65/ ORIG REF: 006/ OTH REF: 003
ATD PRESS: 4229

Card 2/2 BK

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0012408

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001240



APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0012408

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001240

BELIKOVICH, B.A. [Belikovych, B.O.]; VISHNEVSKIY, V.N. [Vishneve'kyi, V.N.]; LYSKOVICH, A.B. [Lyskovych, O.B.]; PIDZYRAYLO, N.S. [Pidzyrayle, M.S.]

Investigation of the distribution of an activator in NaI - Tl crystals [with summary in English]. Ukr. fiz. zhur. 4 no.1:108-115 Ja-F '59. (MIRA 12:6)

1.L'vovskiy gosudarstvennyy universitet im. Iv. Franko.
(Sodium iodide crystals) (Thallium)

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0012408

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001240

VISHNEVSKIY, V.N. [Vyshnevs'kyi, V.N.]; PIDZYRAYLO, N.S. [Pidzyrailo, M.S.]

Absolute quantum yield of the photoluminescence of a synthetic ruby at room temperature. Ukr. fiz. zhur. 5 no. 5:629-633 S-O '60. (MIRA 14:4)

1. L'vovskiy gosudarstvennyy universitet.
(Rubies) (Luminescence)

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0012408

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001240

VISHNEVSKIY, V.N. [Vyshnevs'kyi, V.N.]; LYSKOVICH, A.B. [Lyskovych, O.B.]; PIDZYRAYLO, N.S. [Pidzyrailo, M.S.]

Stability of the reflecting power of magnesium oxide over a wide temperature range. Ukr. fiz. zhur. 6 no.2:213-215 Mr-Ap '61. (MIRA 14:6)

1. L'vovskiy gosudarstvennyy universitet im. Ivana Franko.
(Magnesium oxide--Optical properties)

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0012408

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001240

S/058/62/000/[illegible]
A062/A[illegible]

AUTHORS: Vishnevs'kiy, V. N., Pidziraylo, M. S.

TITLE: Investigation of the efficiency of a luminescent synthetic ruby at room temperature

PERIODICAL: Referativnyy zhurnal, Fizika, no. 11, 1962, 7[illegible], abstract [illegible] ("Dopovidi ta povidoml. L'vivs'k. un-t", 1961, no. [illegible], part. [illegible] 45, Ukrainian)

TEXT: The photoluminescence quantum yield of a synthetic ruby (having a chrome oxide concentration evaluated as 0.5%) is determined by two independent methods: 1) by comparing the intensity of the luminescence excited by the visible radiation of a mercury lamp СВДШ-1000-3 (SVDSh-100-3) (λ = [illegible] mμ) with the intensity of this radiation diffused by a layer of magnesium oxide, and 2) by comparing the intensity of the ruby luminescence (λ_{exc} = [illegible] mμ) with the luminescence intensity of single crystals of anthracene-luminophore of a known quantum yield. The average values of the photoluminescence yield, determined by

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Investigation of the efficiency of...

these methods, are equal to 0.70 ± 0.05 and 0.76 ± 0.09, respectively.

P. Fe...

[Abstracter's note: Complete translation]

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"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001240

ACCESSION NR: AT4016317 S/0000/62/000/000/0342/0345

AUTHOR: Vishnevskiy, V.N.; Ly*skovich, A.B.; Pidzy*raylo, N.S.

TITLE: Luminescent properties of NaI - Tl crystallophosphors

SOURCE: Vses. soveshch. po fiz. shchelochnogaloidn. kristallov. 2d, Riga, 1961. Trudy*. Fiz. shchelochnogaloidn. kristallov (Physics of alkali halide crystals). Riga, 1962, 342-345

TOPIC TAGS: luminescence, fluorescence, phosphor, crystalline phosphor, alkali halide, alkali halide fluorescence, sodium iodide

ABSTRACT: NaI-crystals containing 0.2-1.6% Tl were examined spectrophotometrically using a Cs^{137} source for γ -radiation. The Tl content was determined by fluorescence studies and absorption measurements. In order to measure the energy distribution in the photoluminescence spectrum produced by the irradiated crystal, and the magnitude of the absolute quantum yield of photoluminescence, the 1x5x10 mm crystal specimen was fastened in the center of a 50 mm diameter, hollow, separable ball whose inside surface was coated with a 2 mm thick layer of MgO. The dried and hermetically sealed ball with the

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ACCESSION NR: AT4016317

crystal was placed in an assembly consisting of an ISP-22 spectrograph, a mercury vapor lamp, a system of filters and a photoelectron multiplier. The spectrum was found to consist of an intensive, wide band with a maximum at about 4200 A and a less distinct wide band with a maximum at about 3350 A. The absolute quantum yield remained unchanged at 0.71 ± 0.08 within the concentration range of $\leq 2, 3 \cdot 10^{-4}$ mol Tl/mol NaI, luminescence extinction setting in when the ratio was greater. Orig. art. has: 1 figure, 1 formula, and 2 graphs.

ASSOCIATION: L'vovskiy gosudarstvenny*y universitet im. I. Franko (Lvov State University)

SUBMITTED: 00

DATE ACQ: 06Mar64

ENCL: 00

SUB CODE: IC, GP

NO REF SOV: 004

OTHER: 000

Card 2/2

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"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001240

L 15180-63 EPF(c)/EWT(l)/EWT(m)/BDS AFFTC/ASD/SSD Pr-4 RM/WW

ACCESSION NR: AR3003330 S/0058/63/000/005/D052/D052

SOURCE: RZh, Fizika, Abs. 5D366

AUTHOR: Vy*shnevsky*y, V. N.; Gny*p, R. G.; Pidgy*raylo, M. S.

TITLE: Investigation of the photoluminescence of anthracene vapor

CITED SOURCE: Visnyk L'vivs'k. un-tu. Ser. fiz., no. 1(8), 1962, 145-148

TOPIC TAGS: anthracene, fluorescence, photoluminescence, quantum yield

TRANSLATION: Apparatus comprising of an ISP-22 quartz spectrograph with a photoelectric attachment, graduated in terms of spectral sensitivity, was used to obtain the energy distribution in the luminescence spectrum of antracene vapor (I) excited by 3100 Å light from a mercury lamp with vapor pressure 170 mm Hg and temperature 310°C, under conditions of total absorption of the exciting light by a thin (3 mm) layer of vapor. A correction was introduced for the reabsorption of the luminescence. The spectrum of the vapor of I is shifted relative to the single crystal of I toward the lower wavelengths, and its vibration structure is weakly pronounced. The value of the absolute quantum yield of photoluminescence of vapor of I (0.023) was calculated from the value obtained for the relative luminescence yield of vapor of I (relieve to the crystal) and from the literature data on the absolute quantum yield of the crystal of I.

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S/185/62/007/010/003/020
B234/B308

AUTHORS: Vysmnevs'kyy, V. N., Lyskovych, O. B., Pidzyrayko, M.S. and Chornyy, Z. P.

TITLE: Investigation of x ray luminescence of scintillators NaI (Tl)

PERIODICAL: Ukrayins'kyy fizychnyy zhurnal, v. 7, no. 10, 1962, 1101-1104

TEXT: Single crystals of NaI(Tl), 2 - 3 cm thick and having a cross-section area of 2 cm², were investigated. The energy distribution graph shows a broad intense band with a maximum near 420 mμ and a less intense one near 330 mμ. If the activator concentration is smaller than 2.5×10^{-4} moles Tl/mole NaI the total intensity of luminescence is proportional to it. Continuous irradiation for 17 hours decreased the luminescence intensity, which did not return to usual value after 30 hours. The authors explain this by additional scattering of the excitation energy on lattice defects caused irreversibly by irradiation. The authors thank Ya. M. Zakharko for

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Investigation of x ray ... S/193/62/007/010/004/020
B154/B308

discussion. There are 3 figures.

ASSOCIATION: L'vivs'kyy derzhuniversytet im. Ivana Franka (L'viv State University im. Ivan Franko)

SUBMITTED: March 13, 1962

Card 2/2

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0012408

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001240

VISHNEVSKIY, V.N. [Vyshnevs'kyi, V.N.]; PIDZYRAYLO, N.S. [Pidzyrailo, M.S.]

Simple photoelectric attachment to the KSA-1 spectrograph.
Ukr. fiz. zhur. 7 no.10:1106-1109 O '62. (MIRA 16:1)

1. L'vovskiy gosudarstvennyy universitet im. Iv.Franko.
(Spectrograph)

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0012408

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001240

1.2770

14,3570

S/185/62/007/010/013/020
D234/D308

AUTHORS: Vybornov'kyy, V. M., Bilokopytov, O. B., Prokhorets, ... S. and Shtayenyn, K. M.

TITLE: Investigation of the excitation photoluminescence spectra of NaI(Tl) crystals

PERIODICAL: Ukrayins'kyy fizychnyy zhurnal, v. 7, no. 10, 1962, 1127-1133

TEXT: Tl concentration was about 10^{-6} moles Tl/mole NaI in the crystal and 0.5, 1.0, 2.0 and 4.0 % TlI by weight in the melt. Photocurrent intensity plotted against wavelength of illumination showed intense bands about 300 mμ and less intense bands at about 250 mμ. With increasing Tl concentration the structure of each group becomes more pronounced, and 329, 294, 292, 280, 272 and 302 mμ bands can be noted. The intensity of the latter varies in different ways with Tl concentration. There is 1 figure.

ASSOCIATION: L'vivs'kyy derzhuniversytet im. Iv. Franka (L'viv University im. Iv. Franko)

SUBMITTED: June 14, 1962

Card 1/1 see also 17496-62 S/185/62/007/010/013/020

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0012408

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001240

S/185/62/007/012/006/021
D234/D308

AUTHORS: Vyshnevs'kyy, V.N., Lyskovych, O.B., Pidzyraylo, M.S. and Chorniy, Z.P.

TITLE: Investigation of the dependence of x ray luminescene of NaI (T1) crystals on temperature and activator content

PERIODICAL: Ukrayins'kyy fizychnyy zhurnal, v. 7, no. 12, 1962, 1292 - 1296

TEXT: The activator content was 1 x 10^{-6}, 1.5 x 10^{-5}, 8 x 10^{-5}, 1.6 x 10^{-4} moles T1/mole NaI and 2% T1I by weight in the melt. At 270°K there are two luminescence bands, with maxima near 302 mμ. With decreasing temperature the first maximum is displaced towards the shorter wavelengths. With 2% T1 only the second band is observed. The dependence of the integral energy on temperature varies with T1 concentration. The latter is attributed to the presence of luminescence centers in the case of large T1 content,
Card 1/2

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VISHNEVSKIY, V.N.; PIDZYRAYLO, N.S.

Photoelectric attachment to the ISP-22 spectrograph. Zav.lab. 28 no.5:625-627 '62. (MIRA 15:5)

1. L'vovskiy gosudarstvennyy universitet imeni Ivana Franko.
(Spectrograph)

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L 17182-63 EPF(c)/EWT(m)/EDS ASD Pr-4 RM/WW

S/0185/63/008/005/0587/0590

59
58

ACCESSION NR: AP3000237

AUTHOR: Vyshneva'kyy, V. N., Pidzyraylo, M. S.

TITLE: Concentration and temperature dependencies of the photoluminescence of anthracene vapors.

SOURCE: Ukrayins'kyy fizychnyy zhurnal, v. 8, no. 5, 1963, 587-590

TOPIC TAGS: photoluminescence, anthracene vapor, gaseous phase, integral photometer, temperature quenching, quantum yield, vapor temperature, concentration quenching

ABSTRACT: The data published by various investigators differ considerably with respect to the absolute values of the quantum yield of the photoluminescence of anthracene in the gaseous phase. This discrepancy led to the suspicion that the luminescent capacity of anthracene vapors is greatly affected by the concentration and temperature T of luminous vapors. Accordingly, experiments were performed to verify this relationship, using the integral photometer method. It is shown that in the interval of vapor pressures 0.2 - 1,260 mm Hg there exists a considerable concentration quenching of the luminescence of the vapors. The temperature

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quenching of luminescence is found to lie within the temperature interval 150-310C. The migration distance of the excitation energy in the vapors is approximately 40 Angstroms. The present work is a continuation of an earlier investigation by the authors (Vyshnevs'kyy, V. N., Pidzyraylo, M. S. Visnyk L'viva'kogo derzhuniversytetu, ser. fiz. 1(8), 145, 1962), with the difference that the data are obtained by another method but the results are in agreement. Orig. art. has: 1 equation, 4 figures, and 1 table.

ASSOCIATION: L'viva'ky*y derzhuniversyt*tet im. Iv. Franka (L'vov State University im. I. Franko)

SUBMITTED: 05 Oct 62 DATE ACQ: 18 Jun 63 ENCL: 00

SUB CODE: PH NO REF SOV: 007 OTHER: 001

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"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001240

S/0185/64/009/001/0059/0065

ACCESSION NR: AP4012031

AUTHOR: Bry*ly*ns'ky*y, M. I.; Vy*shnevs'ky*y, V. N.; Pidzy*raylo, M. S.

TITLE: Temperature and concentration dependence of the quantum yield of photoluminescence of NaI (Tl) crystal phosphors

SOURCE: Ukrayins'sky*y fizy*chny*y zhurnal, v. 9, no. 1, 1964, 59-65

TOPIC TAGS: luminescence, NaI(Tl) crystal, Tl, thermoluminescence, photoluminescence, phosphor, quantum yield

ABSTRACT: The dependence of the energy distribution in photoluminescence spectra of NaI-Tl crystals on the Tl content and the temperature was investigated. The temperature dependence of the quantum yield of photoluminescence was also studied. With increasing concentrations of Tl, the maximum of the total intensity of photoluminescence was displaced towards lower temperatures (from 150°for pure NaI to 80°for NaI + 4% TlI). On repeated heating of the crystal, the displacement of the maximum decreased. With increasing temperatures the quantum yield of crystals with any Tl content increased. Two maxima were observed: a low-temperature maximum at 60° for pure NaI and at 45° for NaI + 4% TlI; a high-temperature

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maximum at 150° for pure NaI and at 125° for NaI + 4% TlI. The location of the quantum yield maxima is related to the fact that NaI-Tl crystals develop a perceptible thermoluminescence at 50 and 140°. When crystals of NaI-Tl were heated 2-3 hrs. after being grown, only the high-temperature quantum yield maximum could be observed; the low-temperature maximum was absent. "The authors feel obliged to express their thanks to students G. M. Levy*tskiy and E. P. Kukhar for their help in conducting the experiments." Orig. art. has: 5 figures and 1 formula.

ASSOCIATION: L'vivs'ky*y Derzhuniversy*tet im. Iv. Franka (L'vov State University)

SUBMITTED: 22Jun63 DATE ACQ: 14Feb64 ENCL: 00

SUB CODE: PH NO REF SOV: 006 OTHER: 010

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L 16069-65 EWT(1)/EPA(s)-2/EWT(m)/EPF(c)/EPF(n)-2/[illegible]/T/EWP(b)-2 Pz-6/Pt-10/
ACCESSION NR: AP5000291 S/0070/64/009/006/0870/0875
Pu-4/P1-4
IJP(c)/AFTCA GG

AUTHOR: Romanyuk, N. A.; Pidzyraylo, N. S. 21 B

TITLE: Changes in some optical and dielectric properties of Rochelle salt crystals affected by hard radiation 19

SOURCE: Kristallografiya, v. 9, no. 6, 1964, 870-875

TOPIC TAGS: Rochelle salt crystal, crystal irradiation, x ray irradiation, ultraviolet irradiation, Rochelle salt

ABSTRACT: The effects of ultraviolet and x-ray radiation on the absorption spectra, the dependance of the initial dielectric constant on the temperature, and the shape of the hysteresis loop of Rochelle salt crystals were investigated in specimens cut from a single crystal. Dielectric and optical measurements were carried out on specimens of 0.5—1 mm and 0.3—10 mm thick respectively. In the case of x-ray irradiation, the investigation proved some already known rules of variation for the initial dielectric constant, the hysteresis loop, and some other features of Rochelle salt. In the case of ultraviolet irradiation, both the initial dielectric constant and the form of the

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hysteresis loop vary qualitatively in the same manner. A comparison of the changes caused by ultraviolet and x-ray irradiation of the crystal showed that the displacement of the Curie point due to the same relative changes in ε_{max} is considerably smaller for ultraviolet radiation, not exceeding several tenths of a degree. An investigation of the variation in the specimen's properties with the time showed that the ε_{max} changes during some definite time interval after irradiation, first departing from the initial state, then approaching the initial state. An investigation of the absorption spectra showed that definite changes in the absorption spectrum due to x-ray irradiation were observed only during a longer isothermal rest of crystals after irradiation. They resulted in a slow decrease of absorption in the investigated spectral range during four months of "rest", and the optical density decreased at most by 15% of the value reached immediately after irradiation of the specimen. Ultraviolet irradiation appeared to cause no substantial changes in the absorption spectra of Rochelle salt crystals, even when the changes in ε_{max} were considerable. "The authors thank I. S. Zheludev for the suggested topics and discussing the results, and L. A. Shuvalov for some useful remarks."
Orig. art. has: 3 figures and 2 formulas.

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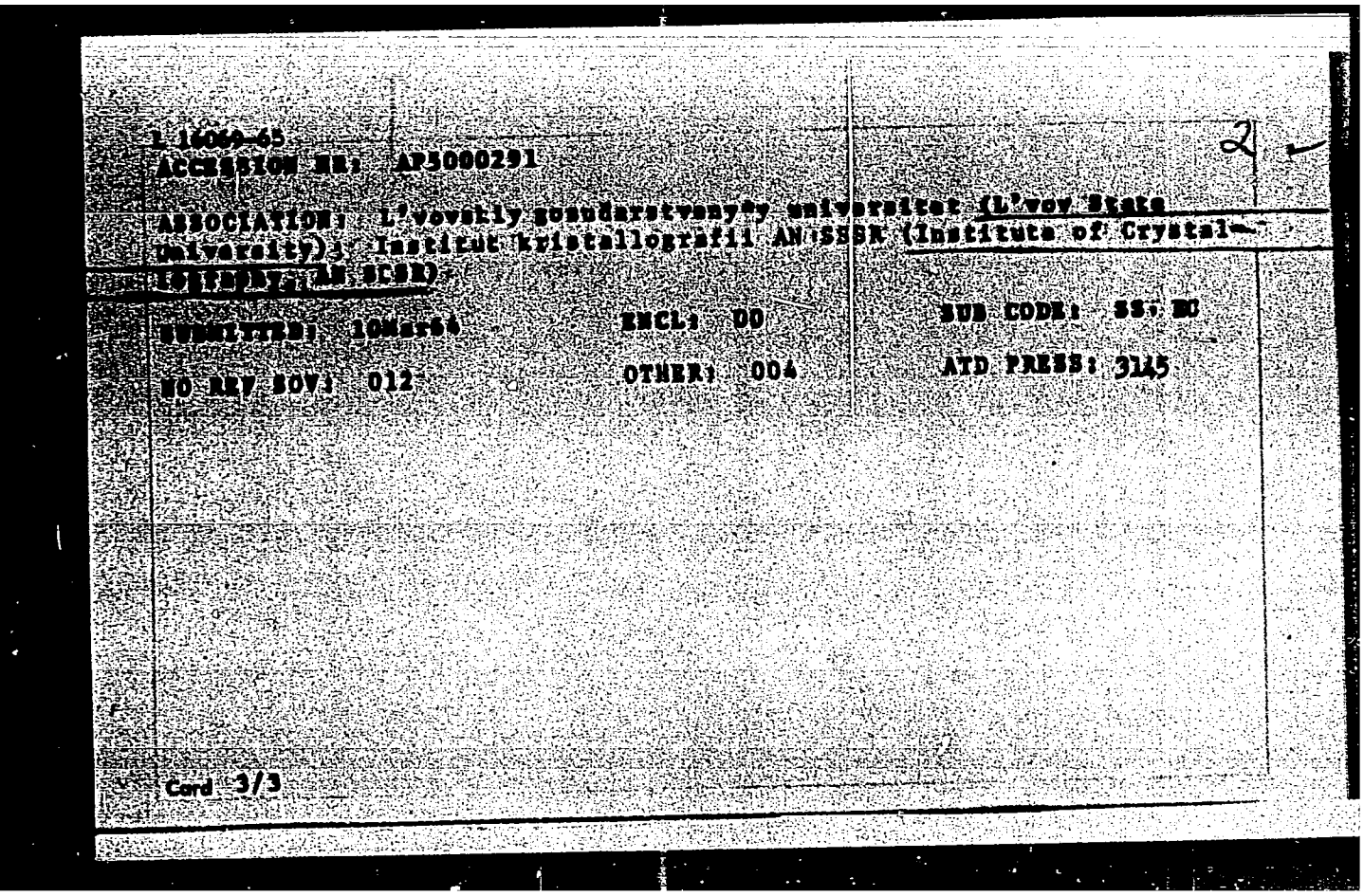

L 16069-65
ACCESSION NR: AP5000291

ASSOCIATION: L'vovskiy gosudarstvennyy universitet (L'vov State University); Institut kristallografii AN SSSR (Institute of Crystal-
[illegible] AN SSSR)

SUBMITTED: 10Mar64 ENCL: 00 SUB CODE: SS; MC

NO REF SOV: 012 OTHER: 004 ATD PRESS: 3145

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VLASNEVSKIY, V. V. [Vlasnevs'kyi, V.V.]; PIDZYRAYLO, M.S. [Pidzyrailo, M...]

Photoluminescence excitation spectra of NaI-Tl single crystals at the temperature of liquid nitrogen. Ukr. fiz. zhur. 10 no.5:531-537 My '65.

Photoluminescence excitation spectra of NaCl and KCl single crystals activated with oxygen-containing impurities. Ibid.:538-542 (MIRA 18:5)

1. L'vovskiy gosudarstvennyy universitet im. Iv. Franko.

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VISHNEVSKIY, V.N. [Vyshnevs'kyi, V.N.]; GNYP, R.G. [Hnyp, R.H.]; PIDZYRAYLO, N.S. [Pidzyrailo, M.S.]

Violet photoluminescence of NaI (Tl) single crystals at a temperature of 77°K. Ukr. fiz. zhur. 10 no.6:691-692 Je '65. (MIRA 18:")

1. L'vovskiy gosudarstvennyy universitet im. I.Franko.

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